

What is claimed is:

1. A method of designing a report file used for automatic report generation, the method comprising:

5 specifying a structure of the report file by defining a first report group comprised of one or more page definitions, the first report group being of a first group type selected from among a plurality of predefined group types;

associating a first data source with the first report group;

identifying one or more fields for inclusion within each of the one or more page definitions; and

10 specifying an association between content from the first data source and each of the one or more fields.

2. The method of claim 1 further including associating one or more properties with each of the one or more fields.

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3. The method of claim 1 wherein the plurality of predefined group types consist of form, grid and pivot table.

4. The method of claim 1 wherein the first report group is specified to also include a second report group.

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5. The method of claim 1 wherein the first group type is a pivot table type comprised of a plurality of rows and a plurality of columns, the associating including associating the first data source with the plurality of rows and a second data source with the plurality of columns.

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6. The method of claim 1 wherein the specifying an association includes selecting content items from a fields tree displayed to a user.

7. A report generation method comprising:

creating a report file defining a report structure based upon at least one report group comprised of or more page definitions, the report file containing information identifying one or more data sources associated with the at least one report group and field descriptive information relating to a plurality of fields included within the one or more page definitions;

retrieving data source information from the one or more data sources; and

rendering an output report document based upon the report file and the data source information, the output report document including one or more output report pages formatted consistently with each of the one or more page definitions.

8. The method of claim 7 further including prompting a user to enter parameter values associated with the plurality of fields and receiving the parameter values entered by the user.

9. The method of claim 7 wherein the output report document comprises a PDF document.

10. The method of claim 9 wherein the rendering includes automatically generating additional pages of the output report document as necessary to incorporate the entirety of the data source information into the output report document.

11. The method of claim 7 wherein the creating includes specifying a first report group and a second report group and wherein a first set of the one or more page definitions are associated with the first report group and a second set of the one or more page definitions are associated with the second report group.

12. The method of claim 11 wherein the creating includes associating a first data source with the first report group and a second data source with the second report group.

13. The method of claim 7 wherein the field descriptive information includes formatting information.

14. The method of 13 wherein the field descriptive information further includes field coordinate information.

15. The method of claim 7 wherein the rendering includes concatenating first and second values corresponding to the first and second items of the data source information.

16. The method of claim 7 wherein a first of the plurality of fields comprises a query field, the data source information including a value associated with the query field.

17. The method of claim 16 wherein a second of the plurality of fields comprises an aggregation field having a value based upon the value of the first of the plurality of fields and a third of the plurality of fields.

18. The method of claim 16 wherein the second of the plurality of fields comprises a calculated field having a value produced by execution of a script.

19. A report generation system comprising:

a client unit configured to execute plural client components including a report explorer application and a report designer application, the report designer application containing a report rendering module;

a server unit configured to execute plural server components including a business logic module and a report writer module wherein the report writer module is configured to cooperate with the client unit in producing the report file; and

a database server in communication with the server unit, the database server providing content information to the server unit in connection with production by the report rendering module of an output report document based upon the report file.

20. The system of claim 19 wherein the report file is based upon a report structure containing at least a first report group comprised of one or more page definitions.

21. The system of claim 20 wherein the report file includes a database query reflecting an association between a first data source and the first report group, the first data source being furnished by the database server.

5 22. The system of claim 20 wherein the report structure is based upon an association between one or more fields and each of the one or more page definitions.

23. The system of claim 22 wherein the report file includes descriptive information associated with the one or more fields.

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24. A report file disposed to be executed in connection with generation of an output report document, the report file comprising:

a database query identifying a data source;

data filter information defining filter operations to be performed upon source data

15 retrieved from the data source;

descriptive information specifying the location and appearance of the source data within pages of the output report document; and

textual data to be displayed upon the pages of the output report document.

20 25. The report file of claim 24 wherein the database query reflects an association between the data source and a first report group comprised of at least a first page, the first report group being of a first group type selected from among a plurality of predefined group types.

25 26. The report file of claim 25 wherein the first report group is further comprised of a second report group.

27. The report file of claim 25 wherein the first group type is of a pivot table type.

28. The report file of claim 25 further including user defined script information.

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29. A report file disposed to be executed in connection with generation of an output report document, the report file comprising:

a first database query identifying a first data source, the first database query reflecting an association between the first data source and a first report group;

5 a second database query identifying a second data source, the second database query reflecting an association between the second data source and a second report group;

data filter information defining filter operations to be performed upon source data retrieved from the first data source and from the second data source;

10 descriptive information specifying the location and appearance of the source data within pages of the output report document; and

input parameter definitions corresponding to input parameter information to be provided to the report file by a user.

30. The report file of claim 29 further including textual data information corresponding to
15 textual data to be displayed upon the pages of the output report document.

31. The report of claim 29 wherein the first report group is comprised of at least a first page, the first report group being of a first group type selected from among a plurality of predefined group types.

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32. The report file of claim 29 wherein the first report group is further comprised of a third report group.